continuous-grain silicon provided with piezoelectric acoustic drivers and audio circuitry integrated therewith. The gaming machine display may utilize piezoelectric audio transducers based on flat-speaker technology of New Transducers (NXT) of England, which employs distributed-mode actuators (DMA) having piezoelectric drive elements disposed on the LCD substrate to vibrate the glass surface and produce sound. The LCD display is also provided with a shift register latch, D/A converter, analog input preamplifier, volume control, and power amplifier.

[0113] In at least one aspect, the gaming machine display may incorporate not one integrated speaker, but a plurality of smaller speakers (e.g., **4**, **8**, **24**, **36**, **49**, **64**) to provide not only improved localization of a sound, but to permit the sound to move around the display. In combination with the tactile stimulus noted above, the sound emitted from the display-based speaker(s) could move synchronously with the tactile stimulus. The display-integrated speaker may further be selectively employed to only cover certain frequencies within the audible range, such as to eliminate conventional high frequency speaker elements (i.e., tweeters), while retaining conventional low frequency speaker elements (e.g., sub-woofer). Elimination of any of the current gaming machine surface mounted speakers in this manner will free up marked volumetric space within the gaming machine, simplify manufacturing complexity and cost, and reduce maintenance costs.

[0114] Moreover, the display-integrated speaker need not be integrated into the gaming machine primary display, but may be provided in one or more secondary displays or in glass panels provided on the display bearing game-related artwork (painted glass) or advertisements (e.g., to offset licensing fees), or the like. Further, the display-integrated speaker need not be paired with a tactile display. In one aspect of the present concepts, a gaming machine could be provided with a dual display, one display (e.g., a top display) having tactile or sensory feedback, the other display (e.g., a bottom display) having one or more integrated speakers.

[0115] The appended claims reflect certain aspects and combinations of the present concepts, but are not exhaustive of all such aspects and combinations. For example, the haptic buttons disclosed herein may be advantageously deployed in technologies and applications other than wagering. The disclosed haptic buttons may be utilized, for example, on a remote "pushbutton" panel held by a user that it in wireless communication or remote communication with a computer or a device. Such haptic buttons may be used in any industry and in any application in which buttons are typically used or in which buttons would typically or potentially find use (e.g., vending machines, portable electronic devices, cell phones, PDAs, automobiles, stationary consoles, factory controls, pachinko machines, non-wagering games, etc.). Additionally, although some of the present concepts have been disclosed in relation to a button, similar concepts are applicable to elongated buttons, sliders, sliding graphic underlays, or the like. Still further, although aspects of the gaming machines **10**, **110** describe the use of a touch screen, haptic effects need not be limited to inputs at specific locations on the display and may, for example, merely require a touch at any arbitrary point along a display surface to register the player's input, such as in the capacitive conductive pathways described in relation to FIG. **5**. Further, the present concepts include all possible logical combinations of the claims and of the various claim elements appended hereto, without limitation, within the associated claim sets regardless of the presently indicated dependency.

What is claimed is:

1. A method of conducting a wagering game on a gaming machine, comprising the steps of:
- displaying on a display a selectable game element;
- associating each potential outcome associated with the selectable game element with one predetermined haptic output selected from a plurality of predetermined haptic device outputs;
- selecting the selectable game element to reveal an outcome associated therewith;
- causing a haptic device to output the one predetermined haptic output corresponding to the outcome of the selectable game element.

2. A method according to claim **1**, wherein the haptic device is haptic display.

3. A method according to claim **2**, wherein the haptic display comprises at least one transparent piezo-electric element disposed on a viewing surface of the display.

4. A method according to claim **2**, wherein the haptic display comprises a plurality of piezo-electric elements disposed adjacent the display.

5. A method according to claim **2**, further comprising the steps of:
- continuously providing an output from the haptic device for so long as a user maintains contact with the user-selectable game element.

6. A method according to claim **2**, further comprising the steps of:
- displaying on a display a user-selectable element;
- associating the user-selectable element and a user-selectable game element; and
- conditionally activating the haptic device in response to a user's concurrent selection of the interlocked user-selectable element and user-selectable game element.

7. A method according to claim **2**, further comprising the steps of:
- displaying on a display a plurality of user-selectable game elements comprising at least a first user-selectable game element and a second user-selectable game element; and
- conditionally activating the haptic device in response to a user's concurrent selection of the first and second user-selectable game elements.

8. A method according to claim **1**, wherein the haptic device comprises at least one of a piezoelectric, electrostrictor, and magnetostrictor material.

9. A method according to claim **2**, wherein the display-based haptic device comprises at least one of a rheological fluid, a wet electroactive polymer, and a conductive polymer.

10. A gaming machine for conducting a wagering game, comprising.
- a display;
- a haptic device connected to a gaming machine input device configured to receive a user input; and
- a controller coupled to the display and the haptic device configured, upon execution of associated instructions, to
  - display randomly selected outcomes on the display;
  - display at least one user-selectable game element on the display; and
  - activate the haptic device in response to a user selection of the at least one user-selectable game element.